IN THE SPECIFICATION:

Please amend the specification as follows:

Please amend paragraph [0001] as follows:

This invention was made with government support under Contract No. DE-FC26-~~97FT34365601~~NT41229 awarded by the U.S. Department of Energy. The government has certain rights in the invention.

Please amend paragraph [0014] as follows:

Fig. 2 is a perspective diagram of a downhole tube of the present invention comprising upset ends.

Please amend paragraph [0016] as follows:

Fig. 4 is a cross-section diagram of downhole tube of the present invention comprising upset ends depicting placement of the tool joints at interfacial surfaces.

Please amend paragraph [0036] as follows:

Fig. 4 is a cross-section diagram of downhole tube 15, as shown in Fig. 3, comprising upset ends 16 and depicting placement of elongate, generally cylindrical the tool joints 30 and 31 at the first and second interfacial surfaces 34~~17~~ and 17~~34~~, respectively. Tool joint 30 is a pin end tool joint having a wall 38 and external threads 32 for connection with an adjacent tool in the drill string. Tool joint 31 is a box end tool joint having internal threads 33, also for connection with an adjacent tool. The thickened wall of the upset 16 of the tube 15 corresponds with the bore walls 35 of the tool joints at the first interfacial surface 34 of the tool joints and with the second interfacial surface 17 of the tube 15. The preferred method of attached at the respective interfacial surfaces is by friction welding, spin welding, or inertial welding. This process produces a connection that is actually stronger than the tube 15, ensuring that if the tool were to

twist off during the drilling operation it would do so along the tube wall rather than in the tool joint.

Please amend paragraph [0039] as follows:

Fig. 7 is a cross-section diagram of another embodiment of the present invention depicting the tube 15 and upset end 16 of Fig. 5 comprising a spiral passageway 70 across the upset end of the tube. Fig. 7a is an end view of Fig. 7. The spiral passageway 70 comprises a rounded groove intersecting the second interfacial surface 17, the bore wall of the upset 19, and the upset transition surface 20. When the upset end 16 is attached to the tool joint, an opening in the tool joint, like that described in Fig. 11~~5~~, will be aligned with the passageway 70 in the upset end 16. The cooperation of the opening in the tool joint and the passageway in the upset end permits the passage of a transmission line from the tool joint to the tube 15.

Please amend paragraph [0040] as follows:

Fig. 8 is a cross-section diagram of another embodiment of the present invention depicting the tube and upset end of Fig. 5 comprising a circumferential groove or chamfer passageway 80 intersecting the second interfacial surface 17. Fig. 8a is an end view of Fig. 8. The passageway 80 comprises a circumferential groove or chamfer intersecting at least a portion of the second interfacial surface 17 and the bore wall of the upset 19. When the upset end 16 is attached to the tool joint, an opening like that described in Fig. 11~~5~~ in the tool joint will be aligned with the passageway 80 in the upset end 16. The cooperation of the opening in the tool joint and the passageway in the upset end permits the passage of a transmission line from the tool joint to the tube 15.

Please amend paragraph [0041] as follows:

Fig. 9 is a cross-section diagram of another embodiment of the present invention depicting the upset end and tube of Fig. 5 and comprising an eccentric wall thickness passageway. Fig. 9a

is an end view of Fig. 9. The passageway is provided in the upset end by forming the effective inside diameter of the bore wall of the upset 19 eccentric from the longitudinal axis of the downhole tool. In this embodiment, the effective inside diameter is formed by the least radial distance from the axis of the tube 15 to the wall 19. When the tool joint is joined to the upset at the first and second interfacial surfaces, the opening like that described in Fig. 11~~5~~ in the tool joint will be adjacent and aligned with region of the second interfacial surface having the least bore wall thickness at the second interfacial surface 17.

Please amend paragraph [0042] as follows:

Fig. 10 is a cross-section diagram of another embodiment of the present invention depicting the upset end and tube of Fig. 5 and an upset comprising an upset bore wall 19 comprising a varying wall thickness passageway. Fig. 10a is an end view of Fig. 10. The passageway is provided in the upset end 16 by forming the effective inside diameter of the bore wall of the upset 19 with a varying wall thickness. Again, the effective inside diameter is formed by the least radial distance from the axis of the tube 15 to the wall 19. When the tool joint is joined to the upset at the first and second interfacial surfaces, the opening of Fig. 11~~5~~ in the tool joint at the first interfacial surface will be adjacent and aligned with the region of the second interfacial surface 17 having the least bore wall thickness at the second interfacial surface 17. In this manner, a transmission line will pass from the tool joint through the downhole tube 15 joining transmission couplers located in the tool joints.